# (BSP September 27, 2004) Disc Bearing

Unless other materials are specified in the Plans, disc bearing assembly components shall conform to the following requirements for those components shown and specified in the Plans:

#### Steel Plates and Bars

Steel plates and bars (sliding plates, bearing plates, guide bars, masonry plates, and sole plates) shall conform to ASTM A 36, and the dimensions shall comply with the details as shown in the Plans. The surface of the steel plates and bars in contact with stainless steel shall have an average surface roughness of 125 microinches or less. The surface of steel plates in contact with the polyether urethane disc, and the surface within the recess of steel plates and bars retaining PTFE, shall have an average surface roughness of 250 microinches or less. All other steel plate and bar surfaces in contact with other disc bearing assembly components shall have an average surface roughness of 500 microinches or less.

# **Polyether Urethane**

Polyether urethane shall conform to Section 18.3.2.8 and Table 18.3.2.8-1 of the AASHTO LRFD Bridge Construction Specifications, 1st Edition and latest interims.

# Polytetrafluoroethylene (PTFE)

PTFE shall be 100 percent virgin PTFE, woven PTFE fabric, or dimpled PTFE conforming to Section 18.8.2 of the AASHTO LRFD Bridge Construction Specifications, 1st Edition and latest interims.

## Stainless Steel

Stainless steel sheet shall conform to ASTM A 240 Type 304L. Stainless steel in contact with PTFE shall be polished to a Number 8 mirror finish.

Stainless steel countersunk screws shall be hexagon socket type conforming to ANSI B 18.3 and shall conform to ASTM F 593 Type 304L.

## Silicone Grease

Silicone grease shall conform to Military Specification MIL-S-8660.

# **Bolts, Nuts and Washers**

Bolts, nuts and washers shall conform to Section 9-06.5(3).

## **Anchor Bolt Assembly**

Anchor bolts shall conform to ASTM F 1554 Grade 105, including supplemental requirements S2, S3, and S5. Nuts shall conform to AASHTO M 291 Grade DH. Washers shall conform to AASHTO M 293. Bars shall conform to ASTM A 36. Pipe shall conform to ASTM A 53 Grade B Type E or S, black.

### **Resin Filler**

Resin filler shall conform to Section 6-02.2 as supplemented in these Special Provisions.

## **Submittals of Acceptance Test Reports and Certificates**

The Contractor shall submit the following production samples, and test reports and certificates, to the Engineer for review, testing, and approval:

- 1. Manufacturer's certificate of compliance for the polyether urethane, PTFE, resin filler, and silicone grease, in accordance with Section 1-06.3.
- 2. A two inch by three inch by 1/8 inch sample of PTFE taken from the lot of production material.
- 3. Certified mill test reports for all steel and stainless steel materials incorporated in the bearings.

The Contractor shall not ship the bearings from the fabricator's facility until receiving the Engineer's written approval of all production samples, and test reports and certificates.